I CLAIM:

1. A heating pad comprising:

an envelope confining a receiving space;

a heating unit including a metal plate, and a resistance heating element attached to said metal plate;

a positioning unit mounted within said receiving space and connected to said metal plate;

a phase change material provided within said receiving space and enclosing said heating unit; and

a pair of electrodes connected to said heating element and extending outwardly of said envelope.

2. The heating pad as claimed in Claim 1, wherein said positioning unit includes a plurality of flexible strips each of which has one end attached to said envelope and another end connected to said metal plate.

3. The heating pad as claimed in Claim 2, wherein said flexible strips and said envelope are made of the same material.

4. The heating pad as claimed in Claim 3, wherein said metal plate is formed with holes, each of said strips passes through one of said holes.

5. The heating pad as claimed in Claim 4, wherein said envelope has a plurality of corners, said strips being attached respectively to said corners.

6. The heating pad as claimed in Claim 1, wherein said envelope is made of a plastic material.

7. The heating pad as claimed in Claim 1, wherein said

resistance heating element is a printed resistance wire provided on a surface of said metal plate.

8. The heating pad as claimed in Claim 1, further comprising a thermal control switch connected electrically to said heating unit.

9. The heating pad as claimed in Claim 1, further comprising a light emitting diode connected electrically to said heating unit.

10. The heating pad as claimed in Claim 1, further comprising a connector connected to said electrodes externally of said envelope.